DOCUMENT RESUME

ED 109 349 CE 004 132

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TITLE Area Agent Staffing Compared With County-Only Staffing in the Cooperative Extension Service in the United States.
INSTITUTION Ohio State Univ., Columbus. Cooperative Extension Service.
SPONS AGENCY Extension Service (DOA), Washington, D.C.
PUB DATE Dec 74
NOTE 23p.; Document may reproduce poorly as it is printed on colored paper

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS County Officials; *Extension Agents; Job Satisfaction; Organization; *Organizational Effectiveness; Participant Satisfaction; Professional Personnel; Program Effectiveness; *Program Evaluation; Role Conflict; *Rural Extension; Staff Role; *Staff Utilization; State Officials; State Programs; Statistical Analysis; Tables (Data); University Extension; Vertical Organization
IDENTIFIERS Organizational Analysis

ABSTRACT

Findings of a three-year project carried out by the Ohio Cooperative Extension Service of Ohio State University indicated that area agent staffing in Extension may result in professional workers being more satisfied with their jobs and feeling more meaningfully involved in the organizational hierarchy. The role conflict that might be expected when a new role is introduced may not occur. Of the two major area staffing patterns in use in the United States, the better rated was the pattern that included three separate levels of workers--county, area, and State. The lower rated pattern involved workers at two levels only--multi-county and State. The county-only pattern was not rated poorly. In several ways it was rated by clientele as better than either area staffing pattern. County-only staffing pattern clientele were more satisfied with programing processes, with speed of response to requests for information, and with the helpfulness of the information they received from Extension. Statistical data are analyzed in tabular form and in the text. (Author/MDW)

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AREA AGENT STAFFING COMPARED WITH COUNTY-ONLY STAFFING IN THE COOPERATIVE EXTENSION SERVICE IN THE UNITED STATES

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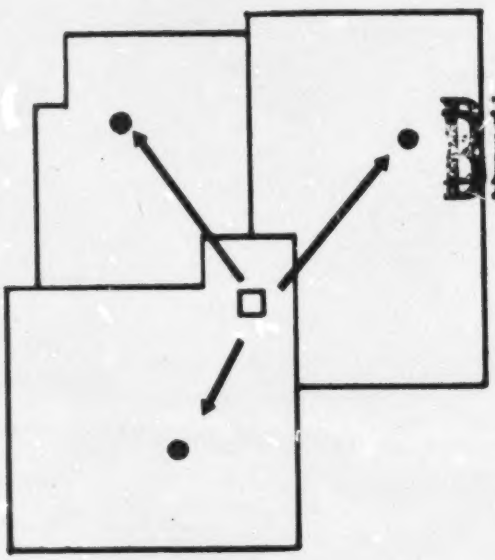

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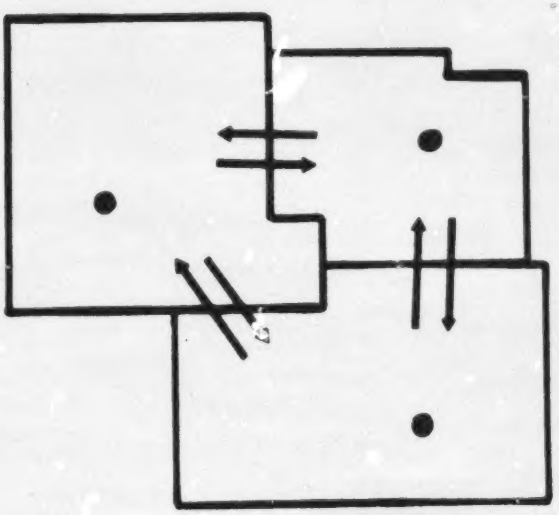

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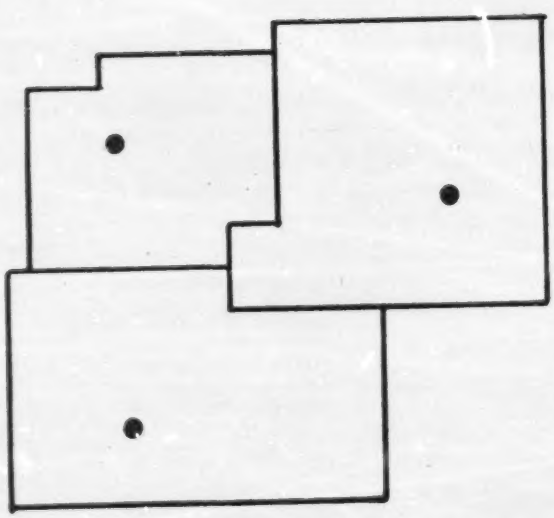

County and State (CS)

by
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AREA AGENT STAFFING COMPARED WITH COUNTY-ONLY STAFFING IN THE COOPERATIVE EXTENSION SERVICE IN THE UNITED STATES

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December, 1974

OHIO COOPERATIVE EXTENSION SERVICE

Area agent staffing in Extension may result in professional workers being more satisfied with their jobs and feeling more meaningfully involved in the organizational heirarchy. The role conflict that might be expected when a new role is introduced may not occur.

Of the two major area staffing patterns in use in the United States, the better rated was the pattern that included three separate levels of workers—county, area, and state. The lower rated pattern involved workers at two levels only—multi-county and state.

The county-only pattern was not rated poorly. In several ways it was rated by clientele as better than either area staffing pattern. County-only staffing pattern clientele were more satisfied with programming processes, with speed of response to requests for information and with the helpfulness of the information they received from Extension.

These findings summarize the primary results of a three year project which was funded by Extension Service, United States Department of Agriculture, and carried out by the Ohio Cooperative Extension Service of The Ohio State University.

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INTRODUCTION

"To conduct a study on the relative advantages and disadvantages of area agent staffing compared with traditional staffing by county units."

This bulletin is the final report of a three-year project, begun in July, 1971 to carry out the above purpose. Requested and funded by the Extension Service, United States Department of Agriculture (ES-USDA), the project was conducted by the Cooperative Extension Service of The Ohio State University.

The need for the project was expressed in 1970 by members of the Extension Committee on Organization and Policy (ECOP), a committee composed primarily of state Extension directors, that provides nationwide guidance for Extension programs. The following were identified by ECOP as factors leading to the need for this study.

1. The complexity and rapidity of economic, social and technological changes.
2. Both individual county and multi-county or area staffing patterns were being utilized by most state Extension services.
3. The multi-county or area staffing pattern was relatively new to the state Extension services.
4. State Extension services were concerned about their staffing patterns in relation to the efficiency and effectiveness of their operations in extending the resources of the Land-Grant Universities to their clientele.
5. Research and operational data were not adequately available to provide a basis for objective staffing pattern decisions.

This report will, in general, be presented in chronological order since the project was designed to have each phase build upon preceding phases. Three major studies, by Moore,[1] Warner,[2] and Pittman,[3] were augmented by additional efforts by those researchers and others.

The reader will note that in all phases of this project respondents were neither asked to recall past situations nor to compare their situations with others. The researchers decided to ask respondents to describe their present knowledge or feelings; comparisons between staffing patterns, states, or other variables would be made by the researchers.

In the course of these studies, a number of scales, instruments and procedures were developed. Where these were found to be particularly reliable and useful, special attention will be given to recommending their use by others interested in similar research. Copies of the instruments may be obtained by contacting the researchers, or from the source documents.

GATHERING PRELIMINARY INFORMATION

Surveying related research, literature and other sources of information is a first step in the conduct of most studies. This one was no exception. This was accomplished through a number of techniques. First, a computer search of ERIC was conducted. The ES-USDA listing "Recently Noted Extension Research Titles on Area, District, Regional Extension Work" was reviewed and copies of relevant studies were requested. Moore visited the ES-USDA repository to review studies and to make notes.

A letter, sent to all state Extension directors, requested information or materials relevant to area staffing. Of the 45 who responded, 32 sent an assortment of material, including organizational charts, area agent programs, financial arrangements, statements of administrative and supervisory responsibilities, job descriptions of area agents, copies of speeches, dissertations, theses and other studies.

An annotated bibliography, listing books, articles, speeches, dissertations, theses and other materials related to area staffing was prepared. The materials were evaluated, and the 59 retained for the bibliography were classified into the following categories:

1. Area versus traditional county staffing: advantages and disadvantages.
2. Traditional county to area staffing: the transition process.
3. Public acceptance: image, public relations.
4. Area staffing: status, area studies, evaluations.
5. Funding.
6. Personnel training.
7. Area development.
8. Programs: effectiveness, methods.
9. Personnel: roles, satisfaction, human relations, conflicts.
10. General.

Several "mini-proposals" (brief problem statements with suggested methodology) were prepared as a result of the activities described above, and during the conduct of the Moore study, a summary of which follows. These mini-proposals provided suggestions for subsequent work on the project and as a preliminary basis for recommendations for further study.

STATUS OF AREA STAFFING

One of the most obvious shortcomings in regard to planning a study of Extension staffing was that no information was available to describe staffing arrangements in Extension across the country. It was apparent that there was an early need to alleviate that lack.

Objectives

Moore's study,[1] the first of the three major ones included in this project, included the following objectives.

1. To identify, within the Cooperative Extension Service, the numbers and types of staffing patterns in the program areas of agriculture, home economics, community resource development and 4-H youth work.
2. To describe selected characteristics of those states possessing various staffing patterns in the four program areas.

His study also compared functions of area and county Extension agents, but the space necessary to explain the lengthy and complex nature of the analysis of those findings precludes its appearance here. The interested reader is referred to the original study.

Methodology

A survey questionnaire was sent to each of the 50 state Extension directors in July, 1972. They were asked to respond to one portion; in addition they were asked to route additional parts to state program leaders in each of the four major program areas. All 50 directors responded while 77 percent of the potential 200 program leaders responded.

Instrument Recommendation

Directors responded to two straightforward questions concerning: (1) the extent to which their state had moved to area staffing (from "not at all" to, by fourths, "completely"), and (2) their rating (categorized in five degrees) of their satisfaction with area staffing.

This procedure resulted in 100% response from state Extension directors. The responses were very easy to tabulate and analyze.

Procedure Recommendation

The procedure of asking directors to route portions of the Moore questionnaire to the appropriate program leaders was clearly understood and complied with. It served two purposes: (1) responses came from the most knowledgeable people, and (2) directors were made aware of the kind of information being sought.

Findings

In 1964 states reported 407 professionals assigned on an area basis; by 1972 this number had increased to 1,703, or more than a four-fold increase.[4]

Extent of Area Staffing

Forty of the 50 state Extension directors reported using some type of area staffing. Directors in 15 states said that they had moved at least half-way toward complete area staffing. Table 1 shows the extent of use of area staffing in all 50 states.

TABLE 1

EXTENT OF USE OF AREA STAFFING AS INDICATED BY EXTENSION DIRECTORS IN 1972

Extent of Movement Toward Area Staffing	Number of States
None	10
Have begun (approximately ¼)	25
Substantial (approximately ½)	4
Mostly (approximately ¾)	2
Completely	9
TOTAL	50

Staffing Patterns Described

The leaders of the four major program areas (agriculture, home economics, 4-H youth and community resource development) in each of the 50 states were asked to indicate, for each of their respective program areas, the number of counties using each of several staffing patterns. In most cases, each reported one staffing arrangement within a state, but in some instances they described more than one. The following are descriptions of the patterns from which the program leaders made their selections.

1. County agents specialize in certain subject matter fields and trade services with agents in nearby counties who specialize in other subjects. Back-up support is provided by state specialists.
2. Area agents (specialists in a subject matter field) work out of an office which is usually centrally located in a multi-county (but not statewide) area. They have back-up support from state specialists. There are no county agents.

3. County agents (programming specialists in agriculture, home economics, community resource development or 4-H work) work out of each county office. They are supported by a number of specialized persons who work out of an office which is usually centrally located in a multi-county area. Both the area and county agents have access to state specialist support.
4. One to three (or more) county agents (programming specialists in agriculture, home economics, community resource development or 4-H) work out of each county office. They are supported by state specialists. There are no area agents.
5. County agents (programming specialists in agriculture, home economics, community resource development or 4-H) work out of each county office. They are supported by a number of specialized persons (area agents) who are also located in the county office, and work in several counties. (Same as pattern 3 with the exception of office location).
6. Combinations of the above mentioned area approaches (1, 2, 3, and 5).
7. State staff only.

Table 2 represents a summary of the frequencies of the responses of program leaders as to the type of pattern being used in their program areas. It can be noted that 61.5 percent reported using one of the types of area staffing. Of the area approaches the combination of county and area personnel working out of separate offices was shown to be the most widely used. It is also noteworthy that there was variation in the use of area staffing by program area. Approximately 50 percent of the program leaders in home economics and 4-H reported continued use of the county approach, whereas in agriculture and community resource development around 75 percent were using area staffing. The agriculture program area made widest use of trading specialities among counties. Community resource development, on the other hand, often had area staff without county-level personnel.

Strengths and Weaknesses of Area Staffing

The program leaders of each state were asked to list, in their opinion, the strengths and weaknesses of area staffing as compared to the county approach. Table 3 lists the strengths of area staffing as perceived by state program leaders.

The most frequently mentioned advantage (or strength) of area staffing concerned the provision of increased specialization in closer proximity to clientele. Specialization was mentioned in the context of meeting clientele needs and in the sense of better preparation of the professional workers. The development of stronger, more in-depth programs and the facilitation of more cooperation among professional staff were also mentioned frequently.

The four most frequently mentioned weaknesses of area staffing were the following: area staff are spread too thin, too large of a geographical area, inadequate funding and too much travel time and expense. It can be noted that three of the four most frequently stated weaknesses (or disadvantages) of area staffing were related to the size of the geographical area of responsibility of the area worker. He is spread too thin, he covers too large of a geographical area, and he has to travel too much. The complete list of weaknesses of area staffing according to state program leaders can be seen in Table 4.

TABLE 2

STAFFING PATTERNS USED IN THE PROGRAM AREAS OF THE FIFTY STATES AS REPORTED BY STATE PROGRAM LEADERS IN 1972

	Agriculture		Home Ec.		CRD		4-H		Total	
Staffing Pattern	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Multi-county, county office	12	22.0	5	10.6	8	14.0	8	13.8	34	15.4
2. Area only, area office	5	8.5	5	10.6	12	21.1	5	8.6	27	12.2
3. Area and county, separate offices	17	28.8	6	12.8	17	29.8	14	24.1	54	24.4
4. County only	15	25.4	25	53.2	16	28.1	28	48.3	84	38.0
5. Area and county, county office	4	6.8	5	10.6	2	3.5	2	3.4	13	5.9
6. Other combinations of area staffing	5	8.5	1	2.1	1	1.8	1	1.7	8	3.7
7. State staff only	—	—	—	—	1	1.8	—	—	1	0.5
TOTAL	59	100.0	47	100.0	57	100.0	58	100.0	221	100.0

TABLE 3

STRENGTHS OF AREA STAFFING AS INDICATED BY STATE PROGRAM LEADERS IN 1972 ACCORDING TO FREQUENCY MENTIONED

Strengths	Agr.	H. Ec.	CRD	4-H	Total
1. More localized specialized assistance	12	7	11	7	37
2. Allows a worker to become more specialized	15	5	[illegible]	3	32
3. Stronger, more in-depth programs	2	6	2	5	15
4. Facilitates cooperation among staff	5	3	4	3	15
5. More efficient use of personnel	3	2	1	2	8
6. Increased competency of professional staff	3	2	1	2	8
7. Meets clientele needs	6	1	—	—	7
8. More time for programming and teaching	3	2	1	1	7
9. More program leadership closer to county	1	1	—	4	6
10. Better ties to university departments and specialists	1	2	3	—	6
11. Attracts competent agents	1	—	4	—	5
12. High morale, prestige and recognition	4	—	—	—	4
13. Reduces need for state contacts	1	1	1	—	3
14. Others (none mentioned more than twice)	7	2	1	1	11
TOTAL	64	34	38	28	164

Satisfaction with Area Staffing

Table 5 reports the responses of state Extension directors as to the extent of use and satisfaction with area staffing. In the 40 states that had begun some form of area staffing, 35 of the directors (88 percent) said that they were satisfied with the staffing arrangement. Furthermore, of the nine states that had completely adopted area staffing, eight directors reported that they were highly satisfied with it.

Thus, for the most part, it appeared that Extension directors throughout the United States, were pleased with area staffing.

Other Findings

Except for the Northcentral region of the United States, the county-only staffing pattern was the most predominant. The area and county, separate-offices

TABLE 4

WEAKNESSES OF AREA STAFFING AS INDICATED BY STATE PROGRAM LEADERS ACCORDING TO FREQUENCY MENTIONED

Weaknesses	Agr.	H. Ec.	CRD	4-H	Total
1. Area staff spread too thin	6	2	6	—	14
2. Too large of a geographical area	3	2	2	6	13
3. Inadequate funding	5	2	3	2	12
4. Too much travel time and expense	4	3	4	1	12
5. Resistance of staff	3	3	1	1	8
6. Role conflict and duplication	4	4	—	—	8
7. Lack of communication	3	2	2	1	8
8. Supervision problems	3	—	—	1	4
9. Less program flexibility	2	1	—	1	4
10. Lack contact with local clientele	2	—	2	—	4
11. Loyalty to home county over other counties	1	—	—	2	3
12. Lack of public acceptance	1	2	—	—	3
13. Harder to maintain expertise over a period of time	3	—	—	—	3
14. Others (none mentioned more than twice)	5	2	1	1	9
TOTAL	46	23	21	16	106

TABLE 5

EXTENT OF USE AND SATISFACTION WITH AREA STAFFING AS RESPONDED TO BY EXTENSION DIRECTORS IN 1972

Movement Toward Area Staffing	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Does Not Apply
None	—	—	—	—	—	10
Have begun (approximately ¼)	4	17	3	1	—	—
Substantial (approximately ½)	2	2	—	—	—	—
Mostly (approximately ¾)	1	1	—	—	—	—
Completely	8	—	—	—	1	—
TOTAL	15	20	3	1	1	10

pattern was the predominant one in the North-central region.

The most frequent titles by which area Extension agents were referred were "area agent" or "area specialist" with "area agent" being mentioned nearly twice as often as "area specialist". County Extension agents were most frequently titled "county Extension agent" or "Extension agent."

A Transitional Statement

Staffing patterns in the 50 states were found to be so varied and complex that a simple description was not possible. In many states, patterns varied within a single program area. Informal arrangements between agents in neighboring counties, in some cases, were being formalized, causing, as an example, "areas" for one agricultural commodity to overlap "areas" for another commodity.

In order to continue to search for differences between patterns and for advantages and disadvantages of various patterns, the researchers felt compelled to identify and describe as small a number as possible of the most common patterns and then to select states in which each of those patterns predominated. This process is described in the following sections.

ORGANIZATIONAL ANALYSIS

Warner[2] conducted the second major study of the research project. It focused on the organizational aspects of staffing. This part of the overall project attempted to provide answers to some of the many questions concerning the advantages and disadvantages of the different staffing patterns from an organizational perspective. Does a change in the staffing arrangement increase the effectiveness of the Extension organization in serving clientele? How do such changes affect the individual worker within the organization? Are employees more satisfied with these new staffing arrangements? Does the organization become more complex? Does more conflict result? Is the level of job satisfaction of the individual related to the degree of complexity of the organizational structure?

A combination of four methods of organizational analysis was selected for this study. It focused on the structure and performance of the organization, the satisfaction of the individual worker within the organization and the interaction patterns among employees.

Objectives

The purpose of this phase of the project was to analyze the organization, the Cooperative Extension Service, in terms of four different approaches as operationalized in the variables organizational structure, organizational effectiveness, employee job satisfaction and role conflict as each relates to the different staffing patterns.

The empirical objectives of the research were:

1. To investigate the relationship between selected measures of complexity of organizational structure and the type of staffing pattern.
2. To analyze the relationship between organizational effectiveness and the type of staffing pattern.
3. To analyze the relationship between job satisfaction of personnel and the type of staffing pattern
4. To identify and compare the degree of role conflict within the roles of the county agent, area agent and state specialist positions as they relate to the type of staffing pattern.
5. To investigate the relationship between the variables (organizational structure, organizational effectiveness, job satisfaction and role conflict) and the following characteristics of the respondents:
   a. Job group (county, area, state specialist or state administrator)
   b. Program area
   c. Tenure in Extension
   d. Age
   e. Level of education
   f. Sex

Methodology

Three patterns of staffing were selected for this in-depth comparative study. They were:

1. **County staff with area responsibilities**—County agents specialize in certain subject matter fields and trade services with agents in nearby counties who specialize in other subjects. Back-up support is provided by state specialists.
2. **Area and county staff**—County agents work out of each county office. They are supported by a number of specialized persons who work in a multi-county area. Both the area and county agents have access to state specialist support. (No distinction is made as to whether the area agent is officed separately from or within a county Extension office.
3. **County-only**—County agents work out of each county office. They are supported by state specialists. There are no area agents.

Subsequent to the implementation of the Warner and Pitman studies, the researchers chose to standardize terms and abbreviations to describe these three distinct patterns.

The description, "county staff with area responsibilities", was changed to "multi-county and state" and was abbreviated MCS.

"Area and county staff" was termed "county, multi-county and state" and was abbreviated CMCS.

"County-only" became "county and state" and was abbreviated CS.

The abbreviations were utilized to prevent cumbersome reading, particularly to avoid a compounding of the conjunction "and".

"State" was included in each identification to remind the reader that state-level personnel were included in each staffing pattern.

Seven states were selected to represent the three staffing arrangements. They were New Jersey and Indiana (MCS), Minnesota, Idaho and Ohio (CMCS), and Tennessee and New Mexico (CS).

A number of criteria served as the basis for selecting the seven states to represent the three patterns of staffing. These were:

1. The type of staffing pattern the state employed.
2. The use of a single staffing pattern throughout nearly all of the state.
3. The use of a single pattern throughout, as nearly as possible, the four programming areas (agriculture, home economics, youth and community resource development).
4. The geographical location of the state such that not all states representing a single pattern would be from the same geographical region of the United States.
5. The relative size of the Extension staff.

Information was collected by a visit to each state to interview the administrative staff, an investigation of official documents of each state's organization, and a mailed questionnaire; the primary instrument for data collection was the mailed questionnaire.

The questionnaire was sent in April, 1973 to a sample of 753 out of a total of 2,346 professional workers in the seven states. The sample represented all job groups in each state organization. Of those sampled, 675, or 90 percent, responded. The sample was selected as a stratified random sample from within the job groups of each state. Larger portions of certain job groups were sampled to insure an adequate number of respondents from each.

The questionnaire consisted of six major parts. The first section asked for background information about the respondents. The second part consisted of the 35 Extension Management Information System purpose statements. As a measure of effectiveness, the respondents indicated how well they felt each purpose was being attained in their state. The third part of the questionnaire consisted of 18 items of the Brayfield-Rothe index of overall job satisfaction. A fourth section contained a list of 36 items concerning organizational complexity. A fifth part contained 24 task statements concerning role perception. A final open-ended section of the questionnaire allowed respondents to express their feelings as to the strengths and weaknesses of their present staffing arrangement and to suggest any changes that, in their opinion, would increase its effectiveness.

Statistical procedures included analysis of variance, the Sheffe' Test, Kendall's Coefficient of Concordance, Pearson Product Moment Correlations and item analysis.

Findings

Organizational Effectiveness

Organizational effectiveness can be measured by how well an organization is "doing its job", or in more precise terms, the degree to which its goals are being realized. Organizational goals can be viewed as providing the standards for assessment of organizational success. The subject of concern is whether effectiveness of the organization is related to the type of staffing pattern. Respondents appraised organizational effectiveness by indicating the extent to which they felt their state was accomplishing each of 35 national purposes as defined by ES-USDA.

The effectiveness instrument allowed a possible range of response scores from 35 to 175, with a midpoint of 105. The mean score for all respondents was 114.67, or slightly above the midpoint of the scale.

1. No statistically significant differences were found among the three staffing patterns with respect to the effectiveness as perceived by the employees of the organization itself. However, the mean scores, as reported in Table 6, were relatively higher for the two area patterns than for the county pattern. Generally, all of the

TABLE 6

ORGANIZATIONAL EFFECTIVENESS, ORGANIZATIONAL COMPLEXITY AND JOB SATISFACTION BY STAFFING PATTERN

Pattern	Mean Effectiveness Score	Mean Complexity Score	Mean Job Satisfaction Score
	Possible Range 35-175 Midpoint 105	Possible Range 15-75 Midpoint 45	Possible Range 14-70 Midpoint 42
Multi-County and State (MCS)	115.02	31.71	61.65
County, Multi-County and State (CMCS)	115.21	32.22	60.49
County and State (CS)	113.49	33.81	59.69
Overall Mean	114.67	32.53	60.55

three staffing arrangements were seen as relatively effective. This finding supports the statement made by an administrator in one state that "almost any staffing pattern can be effective if the workers want to make it work".

2. Significant differences in effectiveness were found among the seven states studied. The two states with the highest mean effectiveness scores were from one area pattern and the county pattern. Therefore, it must be concluded that differences that are reflected by the states find their source in factors other than the staffing pattern.
3. Though an inverse relationship was hypothesized, the size of an organization was found to be positively related to its effectiveness. This finding may be a reflection of increased specialization and division of labor, or simply of increased activity, in a larger organization.
4. There were no significant differences in organizational effectiveness with respect to the job group of the respondent. Job groups were: county, area, state specialist, state administrator.
5. No significant differences were found in the perception of organizational effectiveness with respect to the program area of the respondent.
6. There proved to be no significant differences in perceived organizational effectiveness according to the educational level of the respondent.
7. There were no significant differences in perception of organizational effectiveness with respect to the age of the respondent.
8. No significant differences were found in the organizational effectiveness scores with respect to the tenure of the respondent.
9. No significant differences were found in the level of organizational effectiveness indicated by male and female respondents.

Complexity of Organizational Structure

Structure is a fact of any organization and is of particular concern when considering staffing arrangements. The structure of an organization is analyzed to indicate the effect structural changes have on the behavior of the organization and its members. The question explored in this study was whether there existed a relationship between the staffing pattern and the degree of structural complexity.

In past research, structural complexity has generally been characterized by numerous sub-dimensions.[5] Of the many used, four were selected for use in this study; they were: hierarchial authority, rules and regulations, routinization and impersonality. These four components were included in a 15-item complexity scale which relfected the organizational member's perception of the distribution of power within the organization.

The possible range of scores on the organizational complexity scale was from 15 to 75, with a midpoint of 45. The mean complexity score as reported by the respondents, as seen in Table 6, was 32.53. This is well below the midpoint of the scale. It, therefore, must be concluded that Extension employees in the seven states surveyed, in general, viewed their organizations as being at a low level of complexity.

1. There was a statistically significant difference among the complexity scores reported by the three staffing patterns. The workers in state organizations utilizing CMCS programming indicated more of a feeling of involvement in the decision-making process; that is, they scored lower on the complexity scale than CS pattern respondents. Those in the CS pattern, on the other hand, expressed more of a feeling of isolation from the sources of power within the organization. Staffing arrangement is a structural dimension that seemed to be related to staff members' perception of authority distribution. CMCS staffing may be viewed as a method of decentralizing authority among the hierarchial levels of the organization. With area staff located in close proximity to county staff, they can be seen as providing a link in the communication chain that reduces the feeling of isolation at the county level. With the presence of area workers, county staff may consider that they now have the necessary expertise at their disposal, and they no longer need to choose between "going it along" or "calling on the specialist" who may be relatively inaccessible.

   Respondents working in the area staffing pattern in which county staff also have area responsibilities to neighboring counties (MCS) showed the lowest mean complexity score (see Table 6). This could result from the fact that both the county and area roles are embodied in the same individual, thus decreasing the possibility for problems in communication and coordination while increasing the confidence placed in the worker by clientele.

2. There were significant differences among the seven states with regard to organizational complexity. In a paired comparison of states, significant differences were found between states of the same staffing pattern. Therefore, since differences were found between staffing patterns and between some states within the same pattern, it must be concluded that variables other than the pattern of staffing affected the perception of complexity of the organization.
3. The complexity of an organization was shown to be inversely related to the organization's effectiveness. It has been suggested that when employees feel that they are removed from the sources of power and do not have an

impact on the decision-making process, the overall organizational effectiveness is perceived as lower.

4. The size of an organization was shown to be positively related to its level of complexity. Note the apparent inconsistency among three findings—this one, second, the negative relationship between complexity and effectiveness (3 above), and third, the positive relationship between size and effectiveness (finding 3 on page 9).
5. With respect to job group in the organization, higher complexity scores were reported by respondents at lower levels of the organization.
6. Workers in the program areas of youth and home economics viewed the organization as most complex, whereas those in community resource development and administration and supervision saw it as least complex.
7. The level of education of the respondent was found to be inversely related to his complexity score concerning the organization in which he worked. Workers with more education saw their organization as less complex than did workers with less education.
8. An inverse relationship was found between the age of the respondent and his indication of organizational complexity. Younger respondents tended to rate the organization as more complex than did older ones.
9. The number of years of tenure in Extension of the respondent was inversely related to his perception of organizational complexity. Relatively new employees of the organization perceived it as most complex.
10. There was a significant difference in perception of organizational complexity according to the sex of the respondent. Females viewed the organization as being much more complex than did males.

Job Satisfaction

Job satisfaction refers to the degree of favorableness an individual has of his work role. Job satisfaction was measured by means of a scale in which workers were asked to state the degree to which they liked or disliked their jobs. Therefore, each person's response was his perception of how well his motives were being gratified.

Job satisfaction of the individual employee is important because of its suggested effect on performance, and, as a result, the overall effectiveness of the organization.[6] As Barnett and Louderback point out, administrators are interested both in meeting clientele needs and in maintaining a high level of morale among their employees. Any innovation that decreases net satisfaction among employees, even though it may increase organizational effectiveness, will be viewed with contempt by the workers.[7]

An adaptation of the Brayfield-Rothe index of general job satisfaction was chosen for use in this study. The scale consisted of 14 items with a range of possible scores from 14 to 70, with a midpoint of 42. The mean respondent score proved to be 60.55. It, therefore, can be concluded that, generally speaking, Extension workers were highly satisfied with their jobs.

Instrument Recommendation

The 14-item Job Satisfaction Scale, as adapted, developed and analyzed by Warner, showed a split-half reliability correlation of .87. It should be a valuable instrument to use with Extension professional workers.

1. Significant differences were found among the three methods of staffing, the means of which are reported in Table 6. Those states utilizing the MCS pattern demonstrated the highest level of job satisfaction, the CMCS pattern had a slightly lower level, and the CS pattern exhibited the lowest level. Both area staffing patterns reported higher levels of job satisfaction than did the county pattern.

   Higher levels of satisfaction were anticipated in area staffing arrangements because of increased opportunity for specialization among area agents and the complementary support provided county and state specialist staff. It has also been suggested that the satisfaction of area staff increases as the result of more confidence being placed in them by clientele groups.[8] This should be tested as a part of future studies.

   An inverse relationship between organizational complexity and job satisfaction is shown in Table 6. Respondents in the MCS pattern indicated the highest level of job satisfaction and the lowest degree of complexity, whereas the CS pattern registered a high level of complexity and low satisfaction. This finding was supported at the individual level of analysis. Those persons who viewed the organization as complex indicated a low level of job satisfaction, and conversely, those who felt that the organizational structure was less complex exhibited a higher level of satisfaction in their work role.

2. Significant differences in employee job satisfaction were found among the seven states studied. States that represented the same staffing pattern exhibited both high and low levels of job satisfaction, so it must be concluded that variables other than just staffing pattern were influencing the level of job satisfaction.

3. The level of employee satisfaction was shown to be positively related to the effectiveness of the organization. An employee with a high level of job satisfaction tended to perceive the organization as more effective than an individual with a low level of job satisfaction.

4. Organizational complexity was found to be inversely related to employee job satisfaction. As complexity of the organization increases, one might expect satisfaction of workers to decrease.

5. A negative relationship was found between organizational size and job satisfaction, but it was not at a statistically significant level. There were no significant differences between large and small organizations with respect to the level of employee job satisfaction.

6. There were significant differences in level of employee job satisfaction when compared by job groups. Employees at the state level indicated a higher level of job satisfaction than those at the county and area levels. Satisfaction increased as personnel attained higher positions in the hierarchy of the organization.

7. No significant differences were found in the level of job satisfaction with respect to the program area of the respondent. Though not statistically significant, employees of the 4-H program area expressed the lowest level of satisfaction with their jobs, and state administrative personnel the highest.

8. The level of education of the respondent proved to be positively related to his level of job satisfaction. Workers with higher levels of education enjoyed a high level of job satisfaction, while the reverse was true for those with lower levels of educational attainment.

9. The level of job satisfaction was found to be positively related to the age of the respondent. The younger employees tended to be less satisfied with their jobs, and the older were more highly satisfied.

10. No significant differences were found in the level of employee job satisfaction with respect to the number of years of tenure of the respondent.

11. No significant differences were found in the level of employee job satisfaction between male and female respondents.

Role Conflict

The perception of organizational members as to what an individual's behavior within the group should, or should not, be is role expectation. When the expectations concerning a specific role are incongruous, conflict results. Disagreement among workers within Extension as to the tasks that should be associated with different roles within the organization is an indication of such conflict.

Role perception is important because, as Kahn *et.al.* conclude, "Organizations consist ultimately of the patterned and concerted activity of their members."[9] An analysis of role expectations and conflict within the organization is concerned with the impact of an organization and its members upon the individual; and as a result, the effect of the individual performer and his behavior on the organization's effectiveness. Respondents were asked to indicate the level of priority they would associate with specific tasks that are included in program planning, implementation and evaluation for the roles of county agents, area agents and state specialists.

With the introduction of a new role, such as the area agent in Extension, within an existing organization, it would be expected that there would be a lack of role consensus concerning the expectations of the new position for a period of time until the members of the organization adjust to the presence of this new role. The results of this study showed that no significant level of role conflict was identified in any of the three staffing patterns. There proved to be less consensus with respect to the tasks assigned to the area position, but it was not great enough to be considered conflict in a statistically significant sense. It was concluded that the degree of role conflict was not associated with organizational staffing pattern. Since the presence of conflict was a basic assumption of the analysis and since none was found, it was not feasible to analyze role conflict in relation to the other variables

Tables 7, 8 and 9 summarize the statistical treatment of the major findings of Warner's study.

TABLE 7

DIFFERENCES* BETWEEN STAFFING PATTERNS IN RELATION TO ORGANIZATIONAL VARIABLES AS PERCEIVED BY EXTENSION PROFESSIONALS IN SEVEN STATES (N = 675)

Variable	Staffing Pattern Difference*	F-Ratio
Complexity	CS>MCS; CS>CMCS[a]	4.26
Job Satisfaction	MCS>CS	4.25

* Significant at .05 level.

[a] CS-MCS difference was greater than CS-CMCS difference.

TABLE 8

CORRELATIONS (UPPER FIGURES) AND THE LEVELS OF THEIR STATISTICAL SIGNIFICANCE (LOWER FIGURES) BETWEEN ORGANIZATIONAL VARIABLES AS PERCEIVED BY EXTENSION PROFESSIONALS IN SEVEN STATES (N = 675)

	Job Satisfaction	Complexity	Tenure	Age
Effectiveness	.252 .0001*	-.187 .0001*	.050 .196	.029 .545
Job Satisfaction		-.429 .0001*	.054 .160	.101 .009*
Complexity			-.100 .009*	-.112 .004*
Tenure				.759 .0001*

* Significant at .05 level

TABLE 9

STATISTICAL SIGNIFICANCE LEVELS FROM ANALYSES OF VARIANCE ON ORGANIZATIONAL VARIABLES AS PERCEIVED BY EXTENSION PROFESSIONALS IN SEVEN STATES (N = 675)

	Effectiveness	Job Satisfaction	Complexity
Job Group (Co. Area, Specialist, Administrator)	.254	.0006* Admin. highest	.0005* Admin. lowest
Program Area (Agr., H.Ec., 4-H, CRD, Admin.)	.054 Agri. & H.Ec. highest CRD lowest	.064 Admin. highest	.0001* 4-H highest
Education	.186	.020* Dr. highest	.024* Dr. lowest
Sex	.566	.743	.001* Females higher

* Significant at .05 level

ANALYSIS OF STRENGTHS AND WEAKNESSES OF STAFFING PATTERNS

Included in the Warner questionnaire was the statement, "Please state your opinion(s) as to the strengths and weakenesses* of the present staffing pattern in your state". Responses to that statement were not analyzed by Warner. In addition, it became apparent at about the time that this phase of the project was ending that a clear-cut statement of advantages and disadvantages of various staffing patterns had not yet resulted, nor did future plans appear as if they would result in such a statement.

An effort to resolve both of the above deficiencies was made by Brooks and Young.[10]

Objectives

The objectives of this effort were:

1. To summarize the strengths and weaknesses of three Extension staffing patterns as perceived by professionals working within each pattern.
2. To clarify and simplify a summary of staffing patterns that predominate in the several states.
3. To elicit from state Extension directors their perception of strengths and weaknesses of the staffing patterns predominantly used within their states.
4. To compare perceptions of directors with perceptions of professionals regarding strengths and weaknesses of three Extension staffing patterns.

Methodology

The Warner questionnaires were reviewed in order to identify and tabulate those strengths and weaknesses of their staffing patterns as mentioned by Extension professionals. Table 10 shows the extent of this review.

In any effort to summarize open-ended responses, judgments need to be made as categories are established and as responses are placed in those categories. The primary criterion used by the researchers was to maintain the meaning of each individual response while attempting to develop category statements that would be comparable. The five strengths and five weaknesses that were mentioned most frequently by respondents in each pattern were utilized in preparing a survey form for response from state Extension directors.

The resulting instrument was mailed to each state Extension director in January, 1974. Each respondent was asked to indicate which of the three staffing patterns was predominant for each program area in his state. He was then asked to respond to the list of strengths and weaknesses for his state's

* The words, "strengths" and "weaknesses", were used rather than "advantages" and "disadvantages". The former terms seemed to the researchers to seek out a *description* of a situation, while the latter terms seemed to be *comparative* in nature. The Warner study design called for description rather than comparison.

TABLE 10

NUMBER OF STRENGTHS AND WEAKNESSES IDENTIFIED BY EXTENSION PERSONNEL IN SEVEN STATES

Staffing Pattern	Number of Respondents	Strengths	Weaknesses	Totals
County & State (CS)	186	58	65	123
Multi-county & State (MCS)	169	64	67	131
County, Multi-county & State (CMCS)	327	89	161	250
TOTALS	682	211	293	504

pattern(s) only. He was asked to rank the listed strengths and the weaknesses as he perceived them. He was encouraged to add other strengths or weaknesses that he considered more important than those provided. A few of these were suggested, but there was not enough commonality to create a need to add to or change those listed.

Survey forms were completed and returned by 48 state Extension directors.

Findings

Table 11 summarizes directors' responses to the request for categorization of their states' staffing patterns.

TABLE 11

DIRECTORS' INDICATIONS OF STAFFING PATTERNS BY PROGRAM AREAS IN 1974

Program Areas	County & State Pattern	Multi-county & State Pattern	County, Multi-county & State Pattern
4-H	29	4	14
Agriculture	20	5	23
Home Economics	30	3	14
Community Resource Development	14	15	18
TOTALS	93	27	69

A cursory comparison of Table 11 with Table 2 (page 5) shows general agreement between the directors' responses in January, 1974 and program leaders' responses in August, 1972. The CS pattern (pattern 4 in Table 2) was most predominant, with the program areas of home economics and 4-H utilizing it more than did agriculture or community resource development. The MCS pattern (patterns 1 and 2 in Table 2) was the least used, and community resource development was the primary program area that used it. The CMCS pattern (patterns 3 and 5 in Table 2) was used more by agriculture than by any other program area.

Tables 12, 13 and 14 show the rankings of strengths and weaknesses as seen both by professional personnel (from Warner's questionnaire), and by directors in states that utilize each of the three staffing patterns.

TABLE 12

STRENGTHS AND WEAKNESSES OF COUNTY AND STATE STAFFING PATTERN (CS) AS RANKED BY A SAMPLE OF EXTENSION PERSONNEL IN TWO STATES AND BY 33 EXTENSION DIRECTORS

	Rank by Personnel	Rank by Directors
Strengths of the County and State Pattern		
Provides for close contact with clientele	1	1
Provides for close working relationship between county and specialist personnel	2	3
Encourages clear lines of administrative and technical communication	3	4
Allows flexibility and freedom to solve problems and plan programs that are applicable to the individual worker's organizational staffing position	4	2
Allows an agent to concentrate in area of expertise	5	5
Weaknesses of the County and State Pattern		
Results in too few county, multi-county, and state staff	1	2
Allows for too great a geographical distance between specialist staff and clientele	2	1
Is associated with a specialist staff lacking in field experience	3	4
Makes it more difficult to establish clear lines of communication	4	3

Table 12 shows that there was a great deal of agreement between Extension personnel and Extension directors as to the strengths and weaknesses of the CS staffing pattern. Both groups agreed that the most important strength of this staffing pattern was that it provides for close contact with clientele. The

TABLE 13

STRENGTHS AND WEAKNESSES OF MULTI-COUNTY AND STATE STAFFING PATTERN (MCS) AS RANKED BY A SAMPLE OF EXTENSION PERSONNEL IN TWO STATES AND BY 18 EXTENSION DIRECTORS

	Rank by Personnel	Rank by Directors
Strengths of the Multi-County and State Staffing Pattern		
Allows an agent to concentrate in area of expertise	1	1
Provides for close working relationship between county and specialist personnel	2	2
Allows flexibility and freedom to solve problems and plan programs that are applicable to the individual worker's organizational staffing pattern	3	3
Encourages clear lines of administrative and technical communication	4	4
Allows supervisor to be close to personnel being supervised	5	5
Weaknesses of the Multi-County and State Staffing Pattern		
Makes it more difficult to establish clear lines of communication	1	1
Is associated with a lack of administrative supervision on the county level	2	2
Results in too few county, multi-county and state staff	3	5
Multi-county agents tend to spend most of their time in their home counties	4	4
Results in loss of personal contact with clientele	5	3

other strengths were also ranked very similarly. Table 12 also shows that Extension personnel and Extension directors were in close agreement regarding the weaknesses of the CS staffing pattern. The two most important weaknesses were that this pattern results in too few staff at all levels and that it allows for too great a geographical distance between specialists and clientele.

Table 13 shows that Extension personnel and Extension directors agreed as to the strengths of the MCS staffing pattern. Both groups agreed that the most important strength of the pattern was that it allows an agent to concentrate in his area of expertise. Both groups also agreed that the least important of the strengths was that it allows supervisors to be close to personnel being supervised.

Table 13 shows that Extension personnel and Extension directors were also in close agreement as to the weaknesses of the MCS pattern. Both groups agreed that the number one weakness of this pattern was that it makes it more difficult to establish clear lines of communication. The other weaknesses of this pattern were ranked similarly by both groups.

Table 14 shows differences between Extension personnel and directors as to the strengths and weaknesses of the CMCS staffing pattern. In states utilizing this staffing pattern, the Extension personnel indicated that the major strength was that it allows flexibility and freedom to solve problems and plan programs that are applicable to the individual worker's organizational staffing position. Extension directors ranked this strength last out of a group of five strenghts. Directors felt that the major strength

TABLE 14

STRENGTHS AND WEAKNESSES OF COUNTY, MULTI-COUNTY AND STATE STAFFING PATTERN (CMCS) AS RANKED BY A SAMPLE OF EXTENSION PERSONNEL IN THREE STATES AND BY 27 EXTENSION DIRECTORS

	Rank by Personnel	Rank by Directors
Strengths of the County, Multi-County and State Staffing Pattern		
Allows flexibility and freedom to solve problems and plan programs that are applicable to the individual worker's organizational staffing position	1	2
Provides for close contact with clientele	2	3
Encourages clear lines of administrative and technical communication	3	5
Provides for close working relationship between county and specialist staff	4	4
Allows an agent to concentrate in area of expertise	5	1
Weaknesses of the County, Multi-County and State Staffing Pattern		
Results in too few county, multi-county and state staff	1	4
Encourages too many Extension administrators at the state level	2	5
Makes it more difficult to establish clear lines of communication	3	1
Does not lend itself to adequate numbers of staff in urban areas	4	3
More likely to encourage new program without adequate staffing	5	2

of this staffing pattern was that it provides for close contact with clientele. Extension personnel ranked this strength second.

Extension personnel indicated that the major weakness of the CMCS pattern was that it results in too few staff members at all levels within the organization. Directors felt that the major weakness was that it does not lend itself to adequate numbers of staff members in urban areas.

From the results of this part of the project it is very difficult to demonstrate any pattern of differences in strengths and/or weakness of various Extension staffing patterns as perceived by Extension personnel and by state Extension directors. Applying these findings to the purpose of the overall project, no clear-cut advantages or disadvantages were shown to exist when comparing some form of area staffing with traditional county unit staffing.

When comparing Extension personnel perceptions of strengths and weaknesses with the perceptions of state directors, no substantial differences were observed regarding the CS or the MCS pattern. Some differences were shown to exist in their perceptions of the CMCS pattern.

CLIENTELE APPRAISAL

The third major study in the research project was conducted by Pittman.[3] Its purpose was to compare the three most common Extension patterns as perceived by Extension clientele.

Objectives

The following were the objectives of the clientele appraisal study:

1. To determine clientele evaluation of program effectiveness as measured by goal attainment (organizational) under three common staffing patterns.
2. To evaluate clientele satisfaction with the Extension Service's programming processes under three common staffing patterns.
3. To investigate the relationship among the variables, satisfaction with programming processes, program effectiveness, and the following respondent characteristics:
   a. Age
   b. Level of education
   c. Level of income
   d. Program area with which associated

Methodology

Three of the seven states utilized in the Warner study were selected for this study. They were Tennessee, representing the CS pattern, Indiana, representing the MCS pattern; and Ohio, representing the CMCS pattern. A stratified random sample of the counties in the three states was drawn. Stratification was by supervisory areas or districts and also by program area (agriculture, home economics, 4-H youth, and community resource development). Ten counties were selected per state and per program area. This gave a potential for 40 counties per state or a total potential of 120 counties, and a potential of 30 counties per program area.

Appropriate staff in these counties were asked to submit a list of 50 clientele for their particular program area. A random sample of 15 names were drawn from each of these lists. This gave a potential sample of 1,800 clientele or 450 clientele per program area.

A five section questionnaire was developed to collect information. The first section asked the respondents to indicate the ten most important objectives for Extension to be "working on". (Findings associated with the first section are not discussed in this summary report). The second section consisted of descriptors of the appropriate national purposes and the respondents were asked to rate the effectiveness of the Extension Service in carrying them out. The third section consisted of a list of seventeen descriptors of the program development processes of planning, conducting, and evaluating, as well as maintaining a public image. The fourth section consisted of three questions on satisfaction with present staffing pattern response, speed of response to requests, and helpfulness of information provided. An open-end question asking for suggestions for improving the Extension Service was also included. The fifth section asked for personal information about the respondents.

Multiple regression, F tests and item analysis were used in analyzing the data statistically.

The findings are summarized in relation to each of the dependent variables. Findings were at a statistically significant level unless noted otherwise.

Findings

Table 15 summarizes the statistically significant findings from the Pittman study. That table documents most of the discussion in this section of the report.

Program Effectiveness

Clientele evaluated Extension program effectiveness by rating the extent to which they felt Extension was attaining those objectives appropriate to their program area. That is, agricultural clientele rated agriculturally related objectives, home eco-

nomics clientele rated home economics related objectives, and so on. A procedure was used so that the clientele responses could be "folded over" to each of the 1974 national objectives as utilized in the Extension Management Information System. Brief titles for these purposes are used in the discussion of the program effectiveness findings.

Agriculture

1. No significant differences by staffing pattern were found among the mean scores of the agriculture purposes except for the safety prupose.
2. For the safety purpose, the CS staffing pattern was perceived as being more effective than the MCS staffing pattern.

TABLE 15

SUMMARY OF REGRESSION ANALYSIS OF CLIENTELE DATA. SEVERAL DEPENDENT VARIABLES WITH THE INDEPFNDENT VARIABLES STAFFING PATTERN, AGE, EDUCATION AND INCOME

(Significance Level is .05 Unless Noted Otherwise)

Dependent Variable	Percent Of Total Variance Explained	Percent Of Variance Explained By Staffing Pattern	Staffing Pattern Differences	Percent Of Variance Explained By Other Independent Variables		
				Age	Education	Income
Purpose Effectiveness						
Agricultural Clientele Respondents						
01 External Factors	TMNS [a]	b	b	b	b	1.2(-)
02 Farm & Business Management	6.6					5.1*(-)
46 Safety	TMNS	2.8	CS>MCS			
48 Emergency Preparedness	TMNS					2.5(-)
Home Economics Clientele Respondents						
46 Safety	TMNS	1.3	CMCS>MCS			
66 Clothing	TMNS					2.1
67 Inter-Personal Relationships	TMNS	2.1	CMCS>CS	2.1		
71 Health	TMNS	3.1	CS>MCS CMCS>MCS [c]			
75 Community Facilities & Services	5.8	3.9	CS>MCS CMCS>MCS			
4-H Clientele Respondents						
57 Leadership	TMNS				2.6	
CRD Clientele Respondents						
71 Health	6.8			4.5*		
75 Community Facilities & Services	9.0*	1.8	CS>MCS	7.2*		
76 Community Growth	TMNS			2.8		
77 Employment Skills	TMNS	2.4	CMCS>MCS			
81 Improve Environment	TMNS	3.7	CS>MCS			
85 Public Issues	TMNS	2.0	CMCS>MCS			
Satisfaction With Program Development Processes						
Planning	TMNS	0.5	CS>MCS			
Conducting	2.6	2.2	CS>MCS; CS>CMCS			
Evaluation	2.4	0.9	CS>CMCS; CS>MCS		1.5(-)	
Public Image	TMNS	0.5	CS>MCS			
General Satisfaction With Programming Processes	3.9*	2.3	CS>MCS; CS>CMCS		0.8(-)	
Satisfaction With Staffing Pattern	3.4*	2.2	CS>MCS; CS>CMCS		0.8(-)	
Response Speed	3.5*	2.9	CS>MCS; CS>CMCS		0.4(-)	
Helpfulness Of Information	2.1*	1.9	CS>CMCS; CS>MCS			

[a] Total model not significant.
[b] Empty cells denote non-significant relationships.
(-) Negative relationship.
* Probability less than .01
[c] Where more than one difference is shown, the greater difference is shown first.

3. For the variables age, education, and income, only income was significant in explaining the variance in the scores for the external factors, the farm and business management, and the emergency preparedness purposes. In each case as income of the respondents increased, their perception of effectiveness decreased.

Home Economics

1. No significant differences by staffing pattern were found among the mean scores of the nutrition, family resource management, or housing and clothing purposes.
2. For the safety, health, and community facilities and services purposes the CMCS staffing pattern was perceived as being more effective than the MCS staffing pattern.
3. For the inter-personal relationship purpose the CMCS staffing pattern was perceived as being more effective than was the CS staffing pattern.
4. For the health and community facilities and services purposes, the CS staffing pattern was perceived as being more effective than the MCS staffing pattern.
5. When age, education, and income were considered in the analysis, only two relationships were great enough to be statistically significant in explaining the variance in scores. For the clothing purpose, income was significant; as income of the respondents increased their perception of effectiveness increased. For the inter-personal relationship purpose, age was significant; as age of the respondents increased their perception of effectiveness increased.

4-H Youth

1. No significant differences by staffing pattern were found for any of the 4-H youth purposes.
2. Age, education, and income were not significant in explaining differences in the scores except that education was significant for the leadership purpose. As the education of the respondents increased, their perception of effectiveness decreased.

Community Resource Development

1. Significant differences were found among the mean scores of the community resource development purposes by staffing pattern only on the facilities and services, employment skills, improve environment, and public issues purposes.
2. The CS staffing pattern was perceived as being more effective than the MCS staffing pattern on the facilities and services and the improve environment purposes.
3. The CMCS staffing pattern was perceived as being more effective than the MCS staffing pattern on the employment skills and public issues purposes.
4. Age, income, and education were not significant in explaining the variance in scores except for the health practices and facilities, facilities and services, and community growth purposes. For all three of these purposes, age was significant. As age of the respondents increased, their perception of effectiveness also increased.

Satisfaction with Program Development Processes

1. Overall, the respondents were "satisfied" with the program development processes used by the Extension Services. The overall mean score was 4.01 of a possible 5.0.
2. The respondents from the CS staffing pattern were significantly more satisfied with their Extension program development processes than the respondents from the other two staffing patterns. The difference between CMCS and MCS was not statistically significant.
3. Regarding the planning process, the CS staffing pattern respondents were significantly more satisfied than the respondents from the MCS staffing pattern. The difference between CMCS and MCS was not statistically significant; neither was the difference between CMCS and CS.
4. In the conducting process, the CS staffing pattern respondents were significantly more satisfied than the respondents from either of the other two patterns. The difference between CMCS and MCS was not statistically significant.
5. In regard to the evaluating process, the findings were similar to those for the conducting process—the CS pattern respondents showing significantly greater satisfaction than respondents from either area pattern. No difference was found between the two area patterns.

Instrument Recommendation

An item analysis of the 17 item scale used to measure clientele satisfaction with Extension program development processes resulted in a Kuder-Richardson coefficient of reliability of .93. Reliability of individual items ranged from .57 to .70. When analyzed as three sub-scales, the five items measuring the planning process showed a reliability of .81, the six items measuring conducting resulted in a .85 reliability, and the four item evaluation scale maintained a commendable reliability of .77. Thus, each sub-scale could be used with confidence to measure each of the three components of program development individually.

6. For maintaining a public image, the CS staffing pattern respondents were more satisfied than were the respondents from the MCS staffing pattern. There was no statistically significant difference between CMCS and the other two staffing patterns.

Satisfaction with Staffing Pattern, Speed of Response, and Helpfulness

1. When asked to rate their satisfaction with their staffing pattern, the CS staffing pattern respondents were more satisfied with their staffing pattern than were the respondents from the other two staffing patterns. The difference between CMCS and MCS was not statistically significant.
2. In rating response speed, the CS staffing pattern respondents considered their staffing pattern as being more quickly responsive than the respondents from the other two patterns considered theirs. The difference between MCS and CMCS was not statistically significant.
3. The CS staffing pattern respondents considered the information provided by that staffing pattern as being more helpful than the respondents from the other two patterns did the information provided them. The difference between CMCS and MCS was not statistically significant.

A Supplemental Statistical Analysis

As the researchers worked through the preceding planned-for analysis of this study's data, they were discouraged by the small proportion of the total variance in effectiveness scores that was explained by the selected independent variables—staffing pattern, age, income and educational level. They wondered whether any of the additional data they had collected might be associated with effectiveness scores, and speculated that clientele satisfaction with programming processes might be the most closely associated variable.

To test for these relationships a series of multiple regression analyses were run using, as the dependent variable, each person's rating of program effectiveness as measured by perception of goal attainment. The independent variables were those identified in Table 16.

Though the details in Table 16 will not be discussed here, it is readily apparent that there was a high correlation between satisfaction with programming processes and perception of Extension goal attainment. The relationship was great enough to suggest that the two indicators may have been measuring the same variable—a general satisfaction with Extension's efforts.

Suggestions on Improving Extension

The clientele respondents were asked to list suggestions for improving their state's Extension Service. The only comment that seemed to be related to a staffing pattern was that of several people in the MCS pattern who suggested "going back to the old system" and "agents should be assigned only to one county".

General comments included:

1. Extension needs to devise ways of making the public more aware of its services.
2. Extension needs to reach a broader clientele.
3. Extension needs to change its image from agriculture to all people.
4. Extension agents are doing an excellent job.
5. Extension needs to build better liaison with clientele to involve them more in program development.
6. More personnel are needed in Extension.
7. Additional funds are needed by Extension.

TABLE 16

SUMMARY OF REGRESSION ANALYSIS OF CLIENTELE DATA.
DEPENDENT VARIABLES—EFFECTIVENESS OF EXTENSION IN
ATTAINING NATIONAL PURPOSES—WITH SEVERAL INDEPENDENT VARIABLES

National Purposes	Percent Of Total Variance Explained	Percent Explained By Each Independent Variable							
		Staffing Pattern	Satisfaction With Programming Processes	Age	Education	Income	Response Speed	Helpfulness	Satisfaction With Staffing Pattern
Responded To By Agricultural Clientele									
01 External Factors	23.0*	a	19.5*	a	a	1.3(-)	a	a	a
02 Farm & Business Mgt.	40.0*		24.0*			6.4(-)			
03 Power-Structures	26.6*		20.9*			1.4(-)		2.1	
04 Animal Management	26.2*		21.7*						
05 Crop Management	39.2*		34.2*					1.6	
19 Individual & Group Mktg.	20.7*		17.2*						
20 Marketing Systems	20.6*		14.3*						
22 Expanding Markets	19.0*		14.2*						
23 New Products-Processes	23.7*		21.7*						
46 Safety	22,6*		15.5*			2.3(-)			
48 Emergency Preparedness	26.7*		21.8*			2.7*(-)			
80 Watershed	20.0*		13.9*					4.3	
Responded To By Home Economics Clientele									
46 Safety	21.9*		15.9*						
62 Nutrition	30.1*		21.6*		1.9			4.5	
63 Family Resource Mgt.	22.3*		19.4*						
65 Housing	21.5*		18.2*						
66 Clothing	23.3*		17.4*				4.0		
67 Inter-Personal Relationships	18.9*		14.0*						
71 Health	25.5*		20.3*						
75 Community Facilities and Services	25.8*	1.1 [b]	20.7*						
Responded To By CRD Clientele									
71 Health	20.5*		11.7*		4.2*				1.6
73 Volunteer Leadership	37.3*		30.5*		1.6				1.8
74 Community Action and Organization	23.5*								
75 Community Facilities and Services	29.5*		21.2*	5.5*					
76 Community Growth	23.1*		18.6*	2.1					
77 Employment Skills	18.9*		14.9*						
80 Soil and Water Projects	10.7*		8.3*						
81 Improve Environment	21.8*		18.0*						
82 Pollution	18.9*		17.5*						
85 Public Issues	24.9*	1.4 [c]	22.0*						
Responded To By 4-H Clientele									
54 Science and Technology	22.9*		20.2*					1.4	
55 Personal Growth and Development	28.1*		26.0*						
56 Citizenship	27.5*		24.3*						
57 Leadership	30.1		24.9*	1.9(-)					

[a] Empty cells denote non-significant relationships.
[b] CS MCS and CMCS MCS
[c] CMCS MCS
* Probability less than .01
(-) Negative relationship.

RECOMMENDATIONS

Making recommendations for the findings of non-experimental research designs is always somewhat perilous. Those made from the results of the studies included in this project are subject to the problems of ad hoc research designs.

The problem of delineating clear-cut staffing patterns to compare has already been discussed. The subsequent problem of identifying states to represent those distinct patterns has also been pointed out. In view of these concerns, the researchers felt that the project design was as well planned and executed as possible within the limits of cost, time and personnel.

In consideration of the above limitations, the researchers made the following recommendations.

1. Regardless of the pattern chosen, at least one county Extension agent should be assigned specifically to each county. Clientele react negatively to "losing *their* county agent."
2. An administrator or a committee, in a state where a change in staffing pattern is contemplated, probably should expect the following to occur as a result of the change:
   a. greater job satisfaction on the part of professional workers.
   b. a feeling of more meaningful involvement in the organizational hierarchy on the part of professional workers.
   c. less role conflict than might be expected.
3. In contrast to the desirable changes listed in 2., there are some hoped-for results that probably will not occur as a result of changing to a form of area staffing for a state Extension Service. One might expect:
   a. no improvement in perception by both professionals and clients of organizational goal attainment.
   b. no increase (and possibly a decrease) in clientele satisfaction with Extension programming processes.
   c. a perception of no faster (perhaps slower) response to their requests by clientele.
   d. information to be viewed by clientele as no more helpful (possibly less helpful).
   e. probably no expression of great satisfaction with the new staffing pattern by clientele.
4. Where differences were found between staffing patterns, the one that fared poorest was most frequently the multi-county pattern in which county agents were assigned to work in more specialized programs across several counties (MCS). The researchers felt that this probably was related to Recommendation 1. The recommendation, then, is where a change to area staffing is contemplated, to consider the county, multi-county and state (CMCS) pattern as a desirable alternative.
5. The research designs utilized in this project—particularly those of the Warner and Pittman studies—were found to be effective. Similar designs could be used in other situations.
6. Included in this report are recommendations for further utilization of some of the specific instruments used in the project. Two in particular warrant special recommendation. They are:
   a. the Warner job satisfaction scale.
   b. the Pittman satisfaction with program develment processes scale—and its sub-scales on planning, conducting and evaluation.
7. In the course of this project additional questions were raised.
   a. Is there a better measure of program effectiveness than measuring perception of goal attainment?
   b. What are the measurable outputs of Extension programs? With what aspects of Extension efforts are Extension clientele satisfied?
   c. What, precisely, was Warner's "complexity" scale measuring? He felt it was measuring the professional's perception of his involvement in the Extension organizational heirarchy.
   d. What better methods can be devised to measure role conflict?
   e. What are the sources of job satisfaction for Extension workers? Could the Herzberg techniques be incorporated in studying the effects of staffing pattern changes?
   f. What roles should area agents play to optimize the effectiveness of Extension efforts?
   g. What should be the role of the area (or district) supervisor in various patterns?
   h. Why do women view their organization as more complex than men do? Should that be corrected? If so, how?
   i. How can efficiency be measured? Will the implementation of Version III of EMIS provide capability to measure cost-effectiveness more easily?
8. Though all questions under the preceding item would be the basis for further study, some more general recommendations for future exploration were identified.
   a. One of the reasons expounded by those moving toward area staffing has been that "it will bring specialized help closer to where it is needed and used". This perhaps could

be measured in the difference in miles the client must travel before and after changing patterns. But do clientele who have the greatest need for "specialized help" (Defining that term is a concern in itself.) feel that help is "closer" to them as a result of area staffing?

b. Where a state contemplates a move toward area staffing, they should be encouraged to define their rationale for making the change, gather bench-mark data before the change, keep records of successes and failures as the change process goes on, and gather post-change data for comparison with the bench-mark data.

c. Related to (b) above, but worth special attention, is a recommendation for more longitudinal studies of staffing pattern changes.

d. Because staffing needs and roles vary considerably according to Extension program area, studies need to identify program area as one variable.

e. Populations for future studies might include: (1) the general population, (2) legislators, and (3) personnel in cooperating agencies.

f. The researchers recommend the following as possible variables to consider in future studies:

(1) sources and methods of funding.
(2) efficiency in terms of cost-benefit analysis.
(3) travel time and costs.
(4) extent to which modern communication techniques are used.
(5) support facilities necessary and/or used.
(6) size and density of clientele population.
(7) geographical size of state, area and counties.
(8) criteria upon which areas were established.
(9) job titles.
(10) criteria for selection of personnel for area positions.
(11) training needs and methods for area staff.
(12) extent to which staff and clientele were involved as staffing changes were made.

Footnotes

[1]Philip B. Moore, "Staffing Patterns in the Cooperative Extension Service" (unpublished Ph.D. dissertation, The Ohio State University, 1973).

[2]Paul D. Warner, "A Comparative Study of Three Patterns of Staffing Within the Cooperative Extension Organization and Their Association With Organizational Structure, Organization Effectiveness, Job Satisfaction and Role Conflict" (unpublished Ph.D. dissertation, The Ohio State University, 1973).

[3]Joe D. Pittman, "Effectiveness of Extension Service Programs in Selected Staffing Patterns as Perceived by Clientele" (unpublished Ph.D. dissertation, The Ohio State University, 1974).

[4]Extension Management Information System, Extension Service, United States Department of Agriculture, Washington, D.C., 1964 and 1972.

[5]Richard H. Hall, "An Empirical Study of Bureaucratic Dimensions and Their Relation to Other Organizational Characteristics" (unpublished Ph.D. dissertation, The Ohio State University, 1961).

[6]Rensis Likert, *New Patterns of Management* (New York: McGraw-Hill Book Co., 1961).

[7]Randall Barnett and Logan Louderback, "When Organizations Change. . . ," *Journal of Extension*, IX (Summer, 1971), pp. 9-15.

[8]Buel Lampher et al., "Area Agent Study: A Report of the Review of Multi-County Area Agents Operations in Thirteen States," Federal Extension Service, United States Department of Agriculture, Washington, D.C., 1965, pp. 31-32.

[9]Robert L. Kahn *et al., Organizational Stress: Studies in Role Conflict and Ambiguity* (New York: John Wiley and Sons, 1964), p. 34.

[10]Henry M. Brooks and Richard E. Young, "Strengths and Weaknesses of Three Extension Staffing Patterns," Cooperative Extension Service, The Ohio State University, April, 1974 (Mimeographed.)